

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 5609 - L2 Version 3  
Chandra X-Ray Center

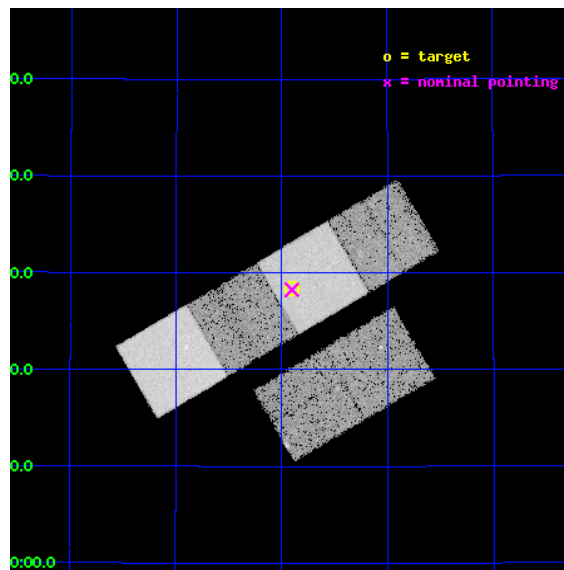
L2 Processing Date : Dec 30 2012

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# 1 Front

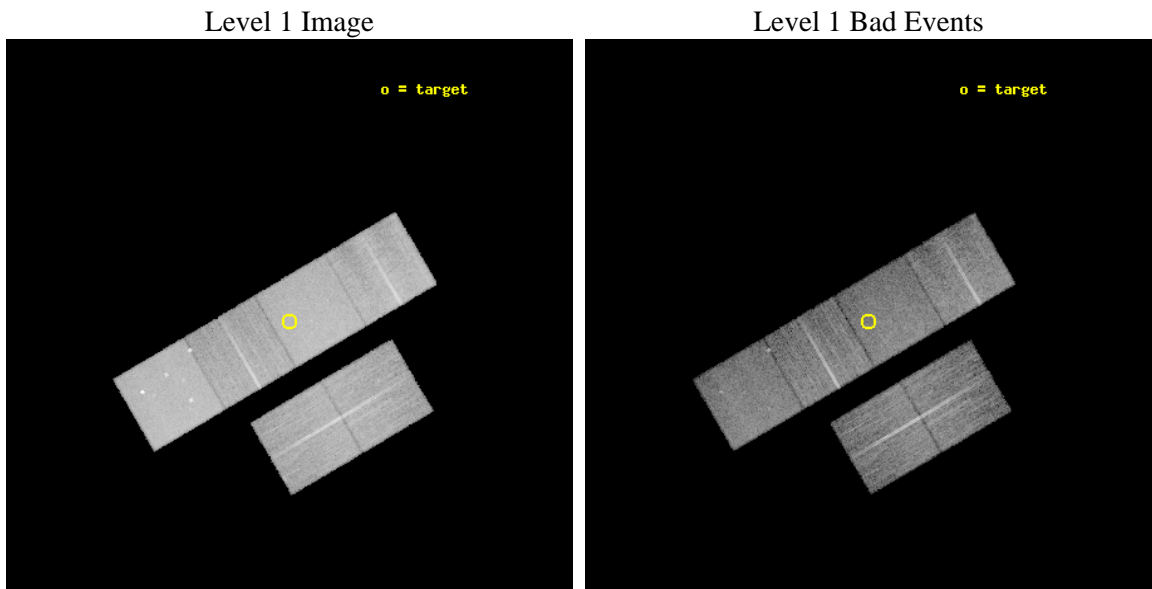
seq_num	701032	Sequence number
obs_id	5609	Observation id
title	A Chandra Survey of the Most Distant Quasars: X-raying the First Massive Black Holes	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS J1602+4228	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	240.725833	Observer's specified target RA [deg]
dec_targ	42.473028	Observer's specified target Dec [deg]
ra_nom	240.72618424992	Nominal RA [deg]
dec_nom	42.47094646814	Nominal Dec [deg]
roll_nom	329.59356186616	Nominal Roll [deg]
revision	3	Processing version of data
ontime	13369.599950194	Sum of GTIs [s]
livetime	13200.306025418	Livetime [s]
ontime2	13369.599950194	Sum of GTIs [s]
ontime3	13366.358999819	Sum of GTIs [s]
ontime5	13369.599950194	Sum of GTIs [s]
ontime6	13369.599950194	Sum of GTIs [s]
ontime7	13369.599950194	Sum of GTIs [s]
ontime8	13366.358989894	Sum of GTIs [s]
l2events	178285	Number of level 2 events



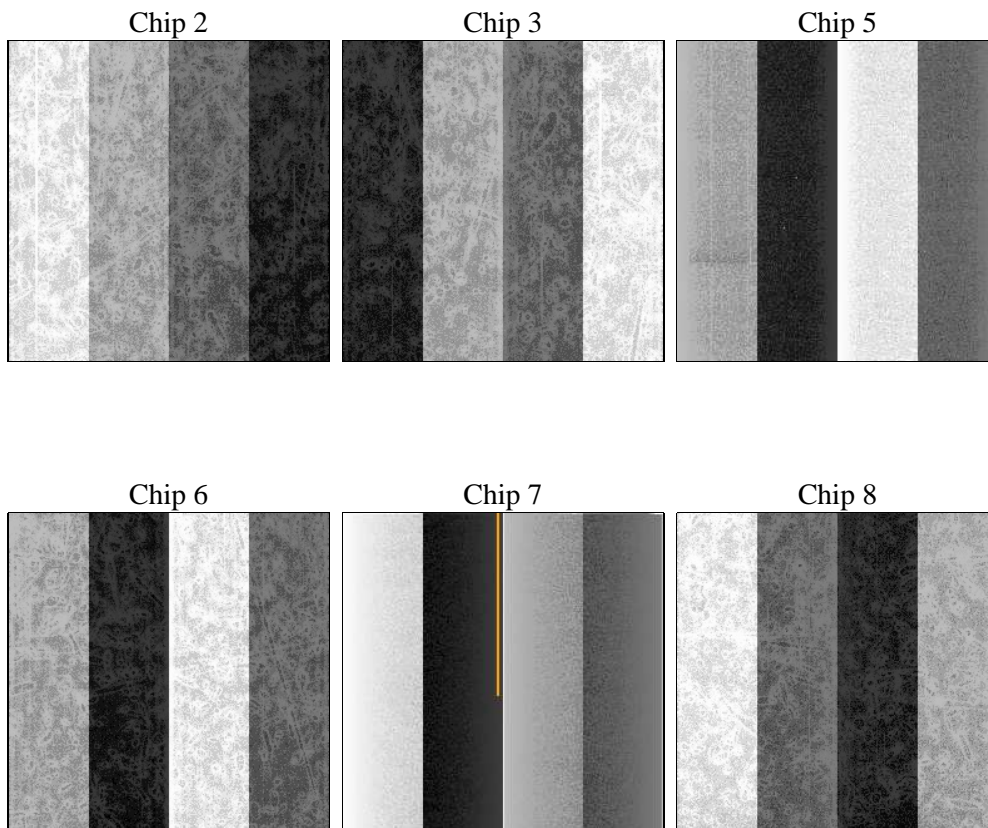
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	13227.027000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	13369.599950194	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime2	13369.599950194	Sum of GTIs [s]
date	2012-12-30T22:47:48	Date and time of file creation	ontime3	13366.358999819	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	13369.599950194	Sum of GTIs [s]
			ontime6	13369.599950194	Sum of GTIs [s]
			ontime7	13369.599950194	Sum of GTIs [s]
			ontime8	13366.358989894	Sum of GTIs [s]
			l1events	769539	Number of level 1 events

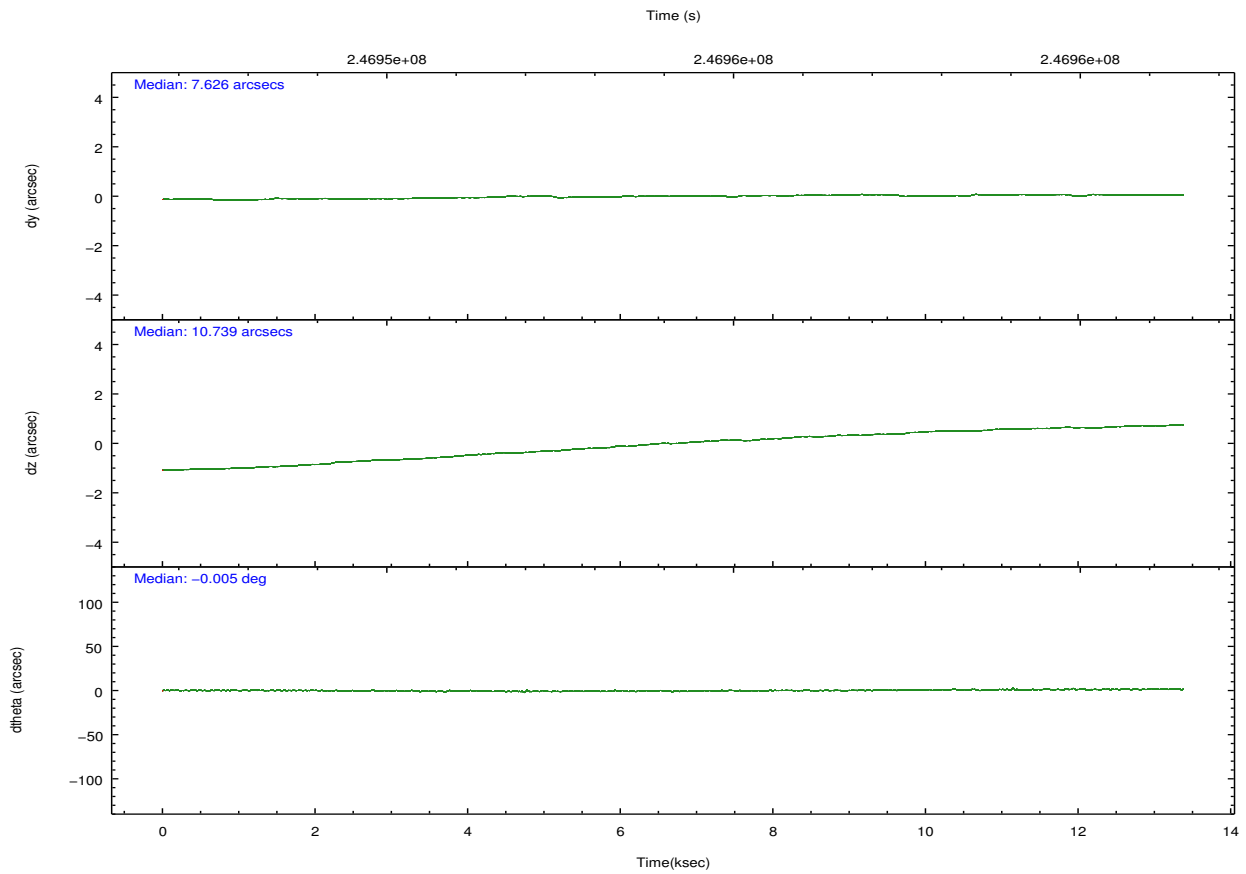
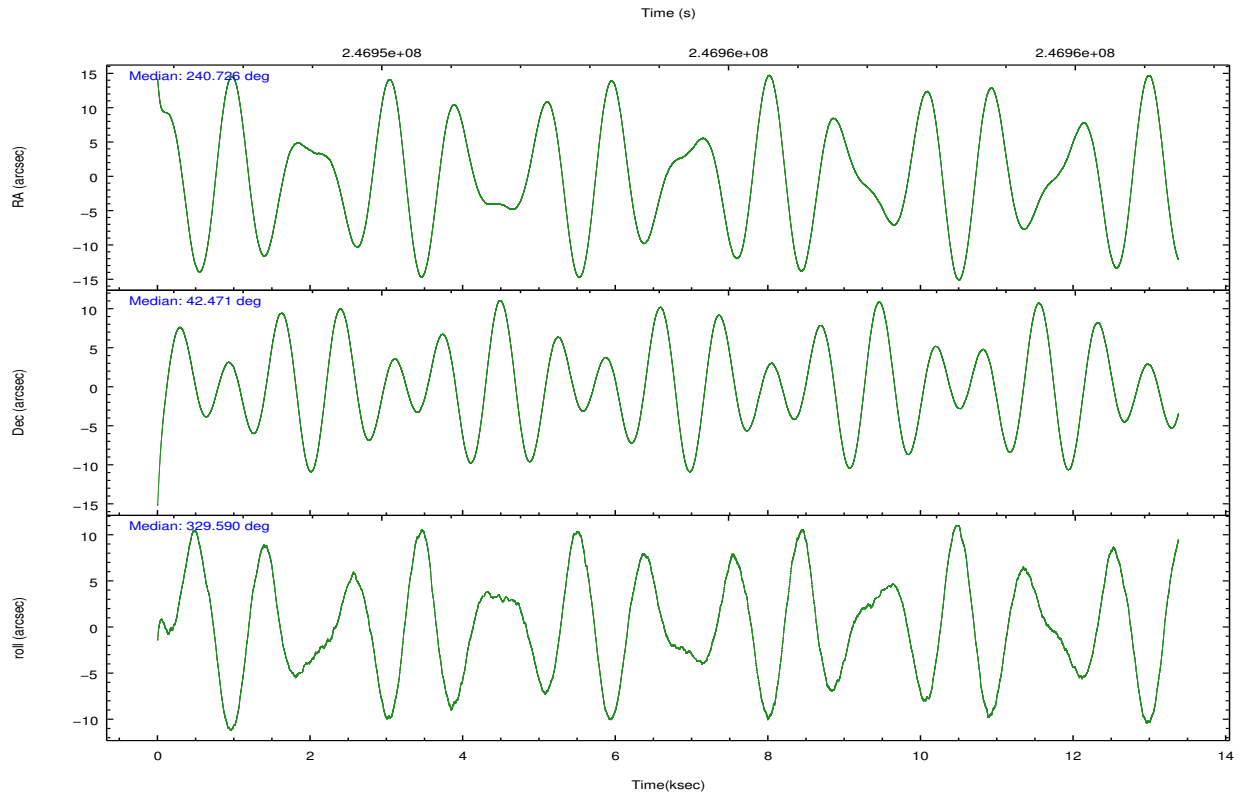
### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	109331	104326	165249	106697	147612	136324	grade 0 events	6689	6068	8413	5539	5518	9983
rejected events	95589	91326	89156	93540	86540	105726		6%	5%	5%	5%	3%	7%
rejected %	87%	87%	53%	87%	58%	77%	grade 1 events	72	72	439	55	139	98
								0%	0%	0%	0%	0%	0%
							grade 2 events	2655	2498	23059	2803	12292	6871
								2%	2%	13%	2%	8%	5%
							grade 3 events	1248	1208	2947	1172	5263	3224
								1%	1%	1%	1%	3%	2%
							grade 4 events	1210	1198	2813	1212	5291	2981
								1%	1%	1%	1%	3%	2%
							grade 5 events	4145	4746	11731	4948	13682	6535
								3%	4%	7%	4%	9%	4%
							grade 6 events	2106	2202	39937	2591	33562	8028
								1%	2%	24%	2%	22%	5%
							grade 7 events	91206	86334	75910	88377	71865	98604
								83%	82%	45%	82%	48%	72%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	240.689217	240.7261842499234	Subarray requested	NONE	NONE
[deg] Pointing Dec	42.470781	42.47094646814041	Alternating exposures requested	N	N
[deg] Pointing Roll	329.461894	329.5935618661623	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	246947594.184000	246946447.5861			
Observation start date	2005-10-29T04:32:10	2005-10-29T04:14:07			
[s] Observation end time (MET)	246960821.184000	246961047.68678			
Observation end date	2005-10-29T08:12:37	2005-10-29T08:17:27			
Read mode	TIMED	TIMED			

## 2.3 Aspect

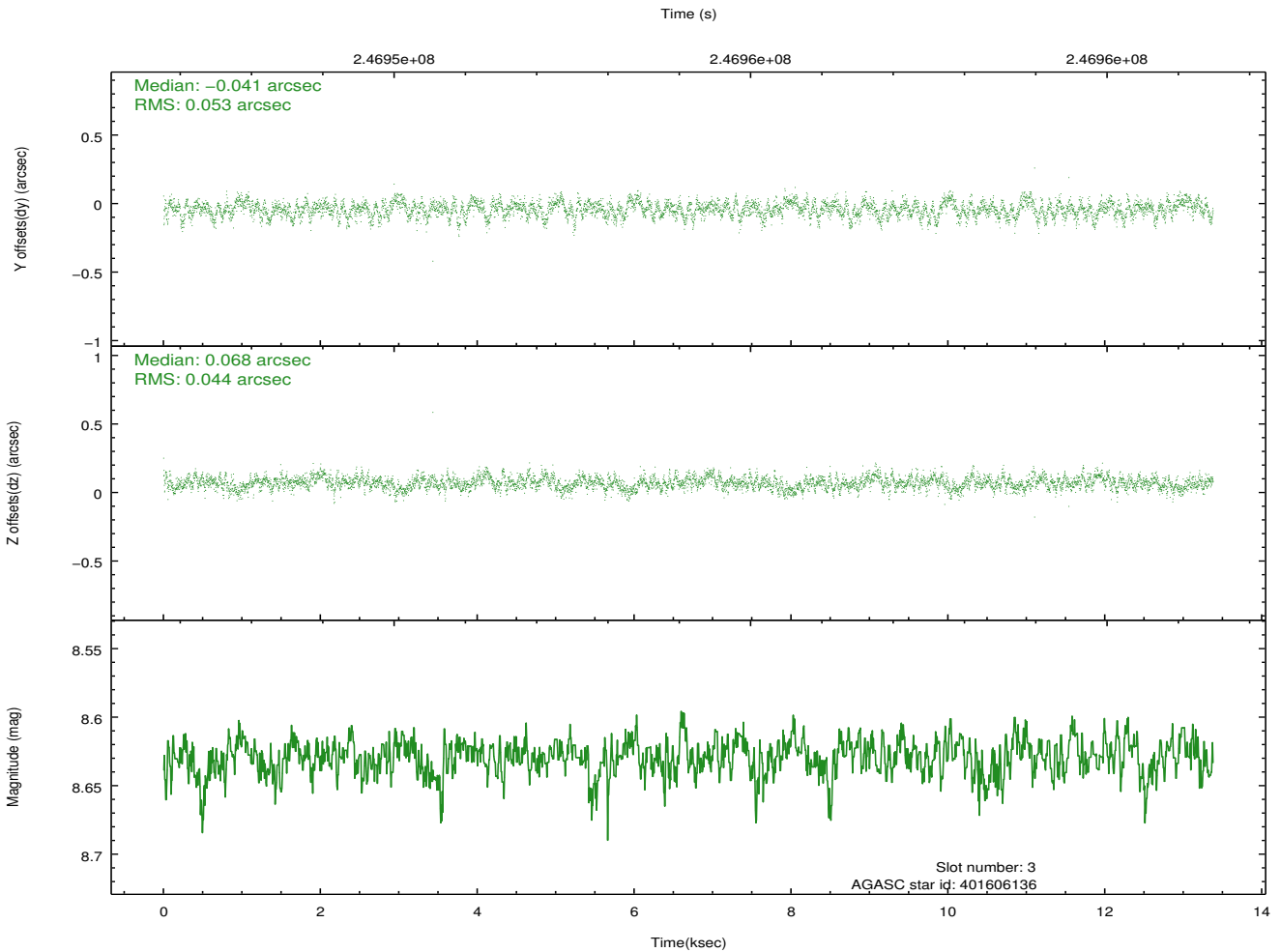
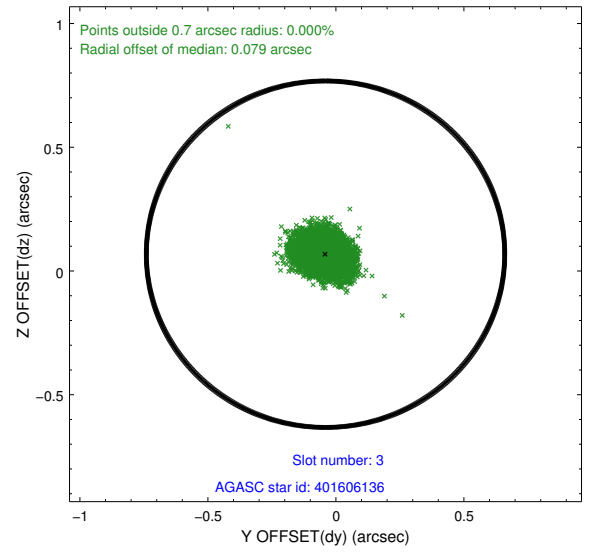
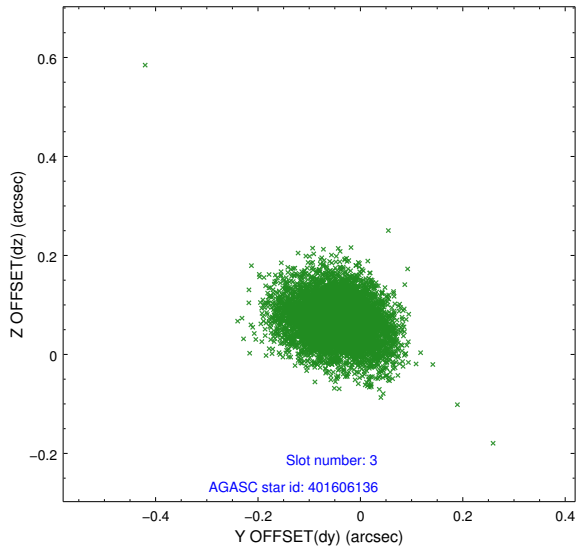


### Slot Statistics

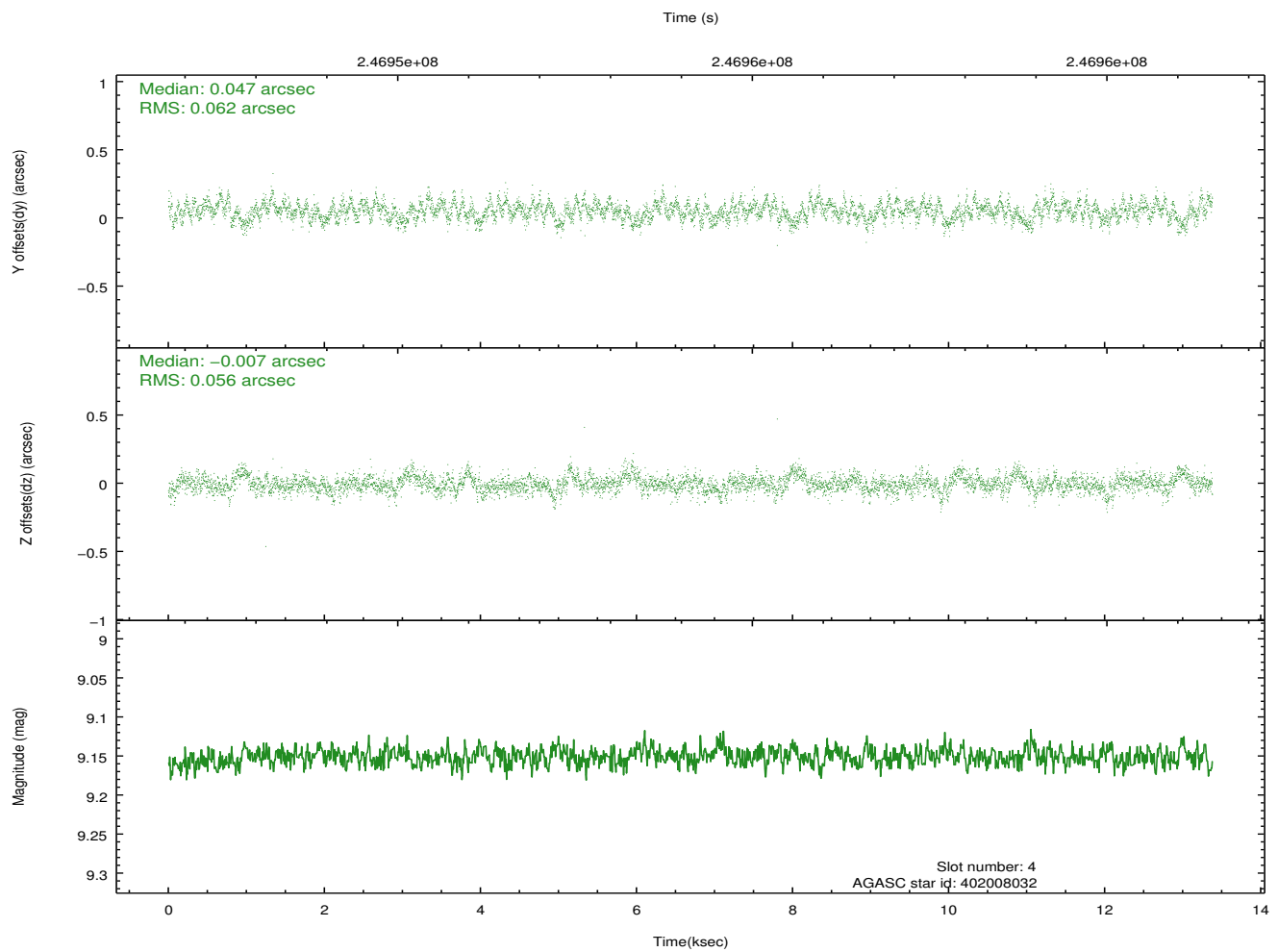
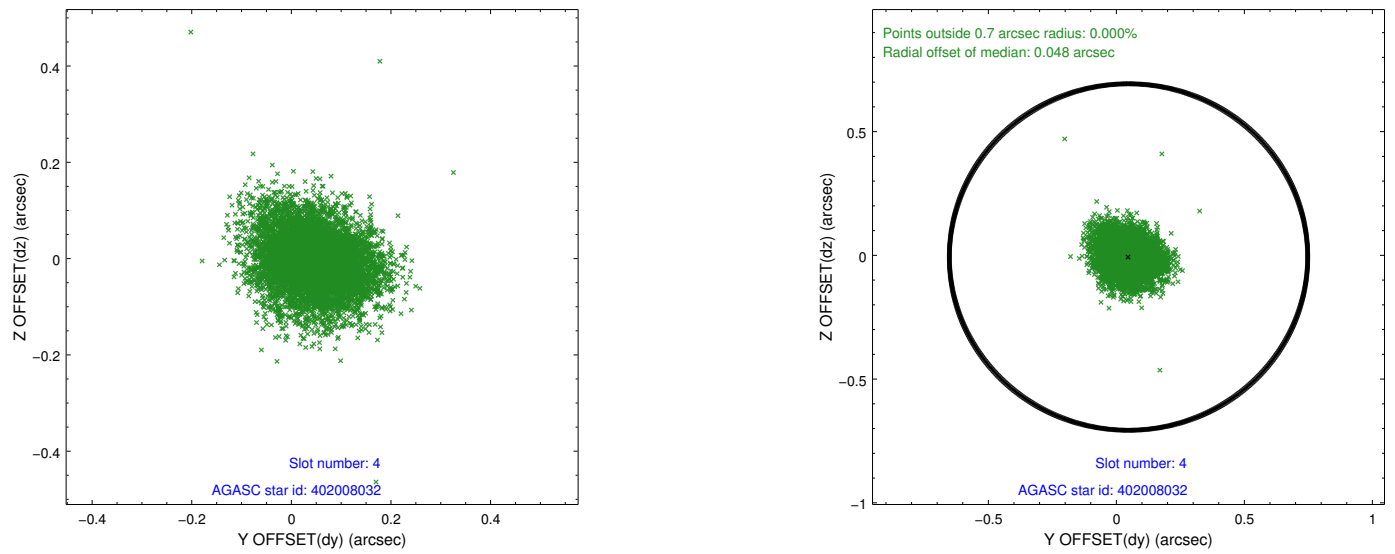
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	3264	-0.040	-0.017	0.011	0.016	0.000000	0.000000	-760.38	-1731.90
1	FID	ACIS-S-4	7.21	3264	0.098	0.024	0.008	0.015	0.000000	0.000000	2152.83	176.32
2	FID	ACIS-S-5	7.24	3263	-0.089	0.003	0.008	0.014	0.000000	0.000000	-1812.85	170.29
3	GUIDE	401606136	8.63	6522	-0.041	0.068	0.072	0.120	241.147440	41.904129	2092.36	-1129.97
4	GUIDE	402008032	9.15	6525	0.047	-0.007	0.088	0.144	240.713470	43.039771	-985.64	1796.60
5	GUIDE	402009440	8.74	6523	0.006	-0.038	0.066	0.107	240.439336	42.842846	-1249.21	819.67
6	GUIDE	402011280	8.55	6525	-0.001	-0.002	0.056	0.093	240.118930	42.990142	-2246.25	851.88
7	GUIDE	401605872	8.20	6525	-0.013	-0.024	0.067	0.110	241.346180	42.026652	2321.96	-478.16

## 2.4 Star Slots

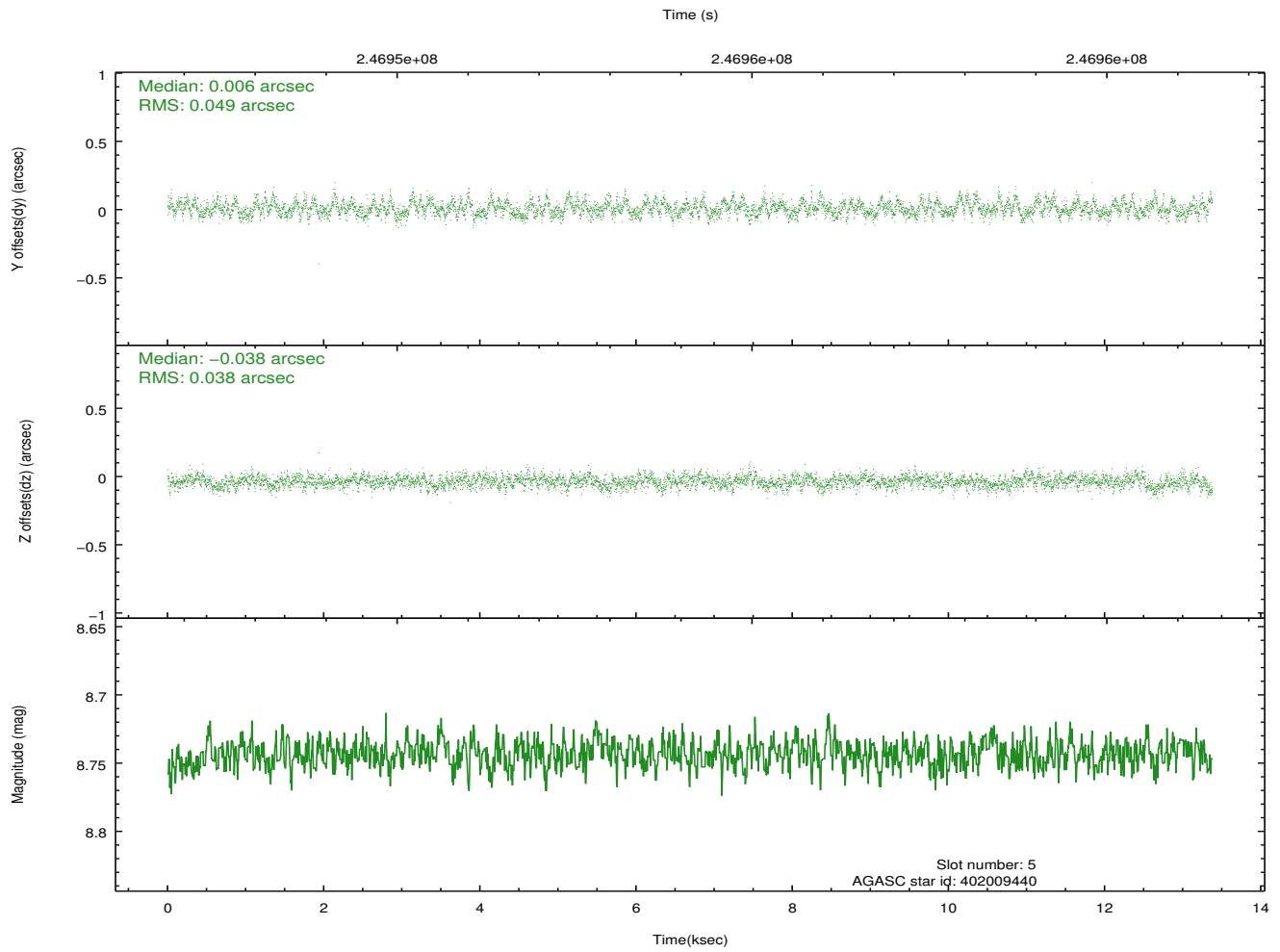
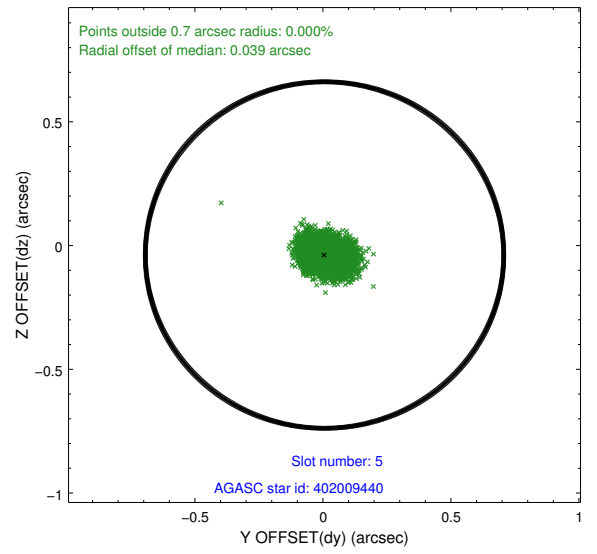
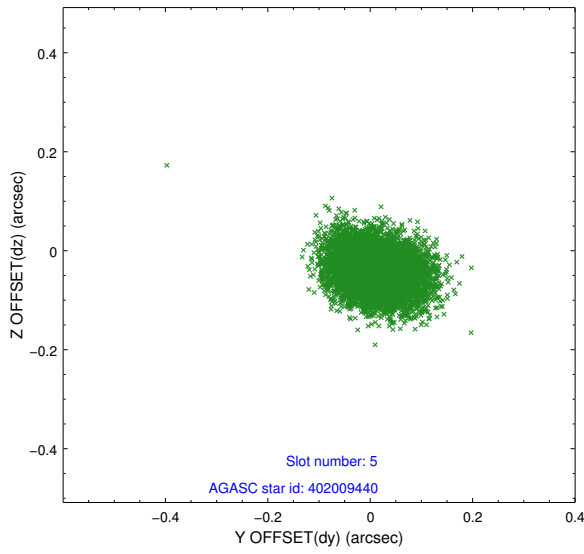
### 2.4.1 Slot 3



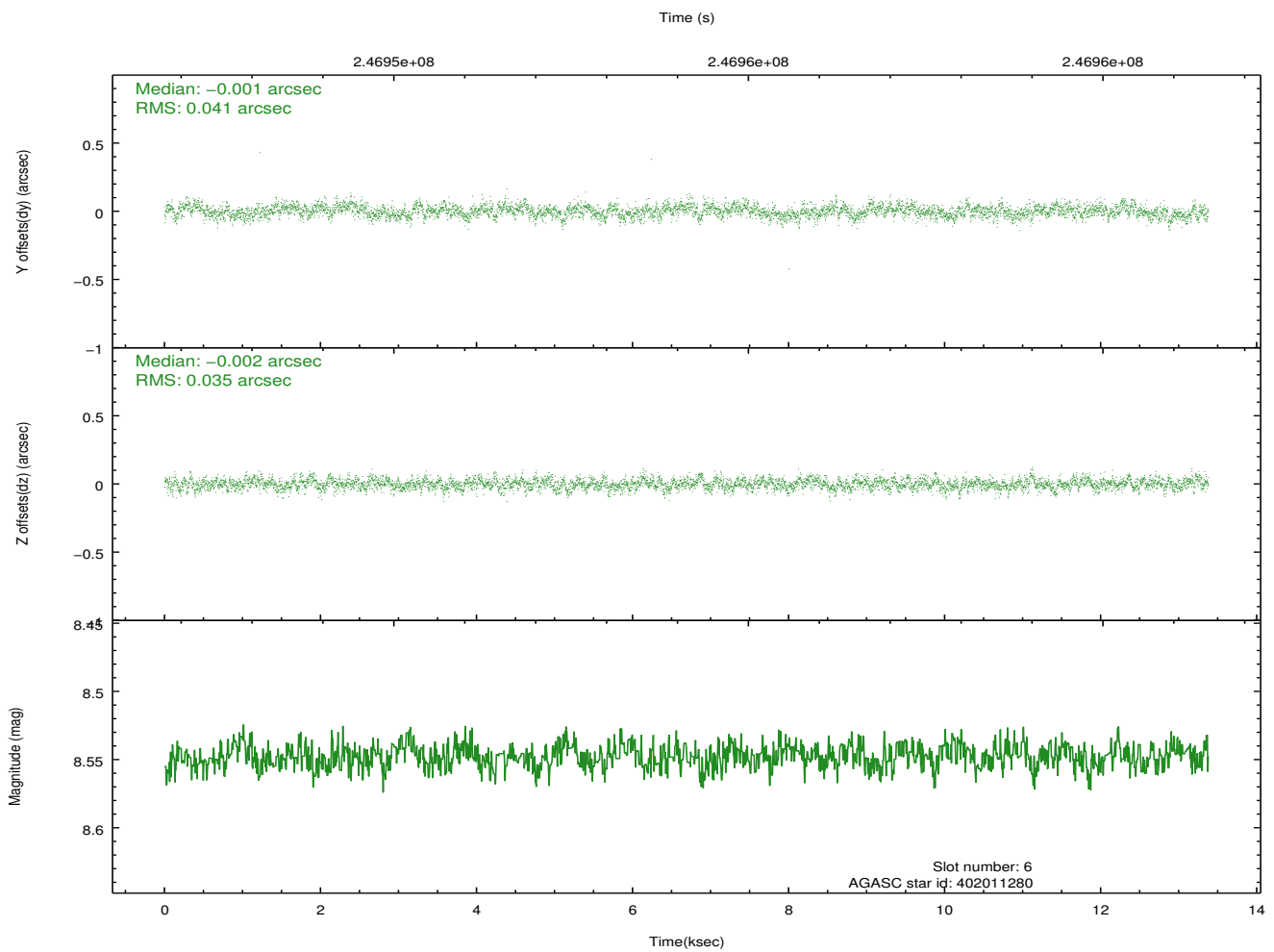
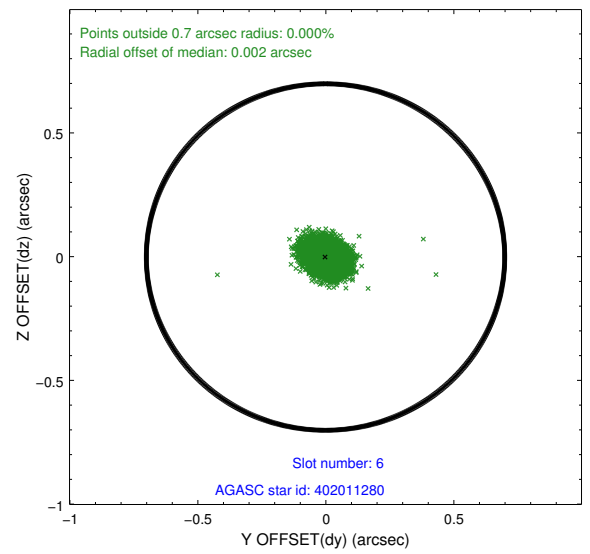
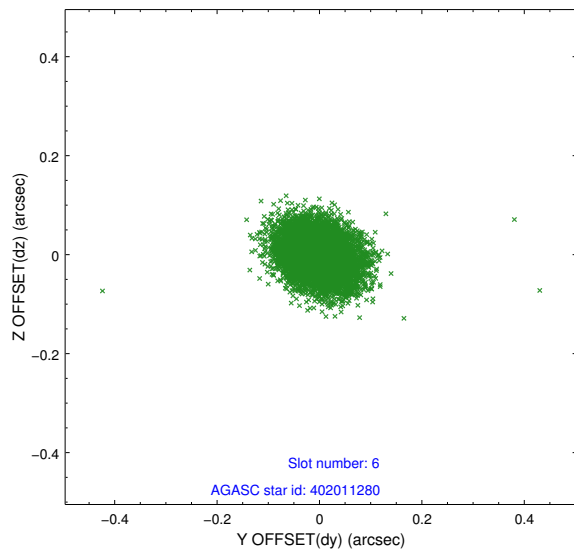
## 2.4.2 Slot 4



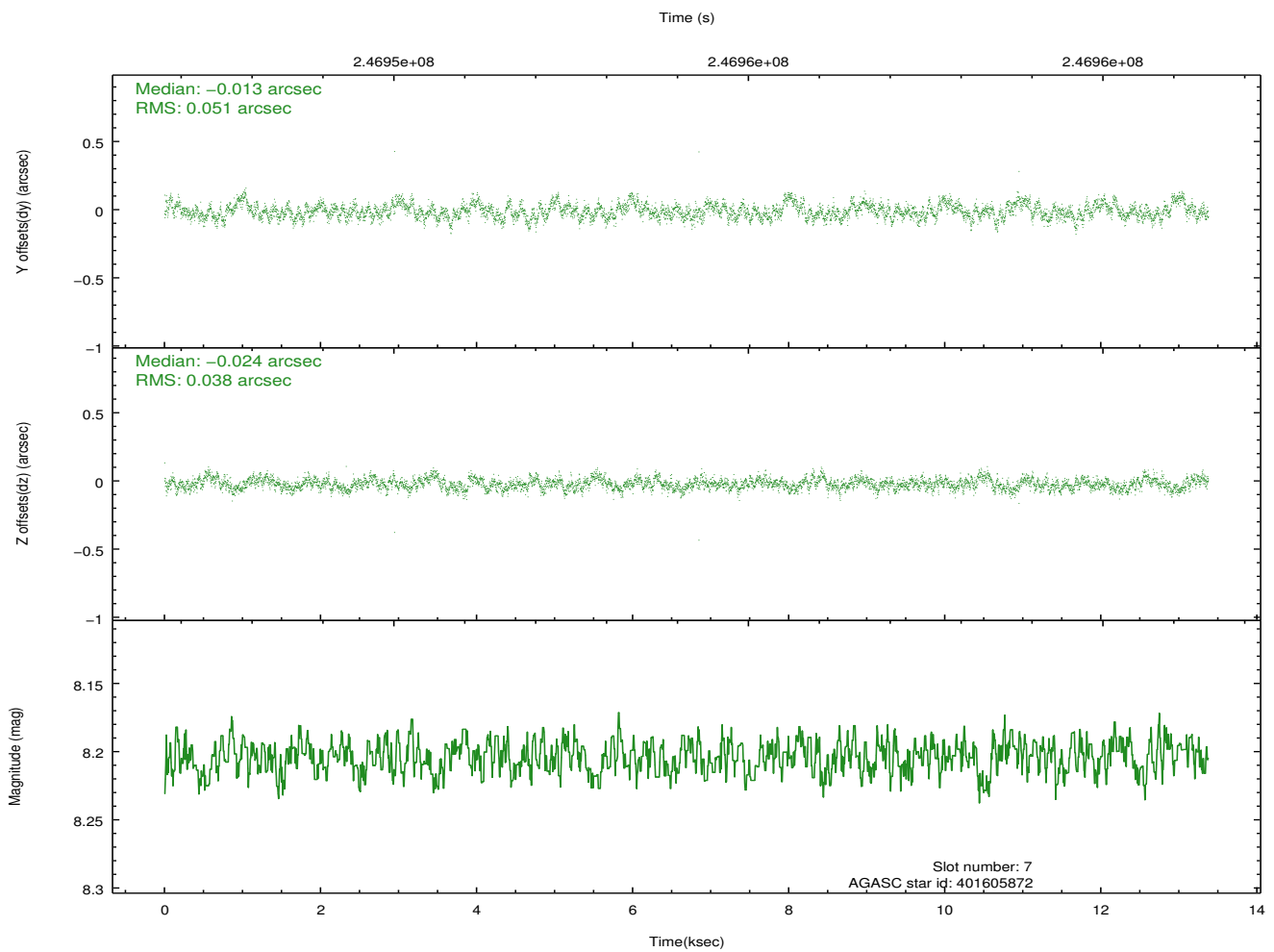
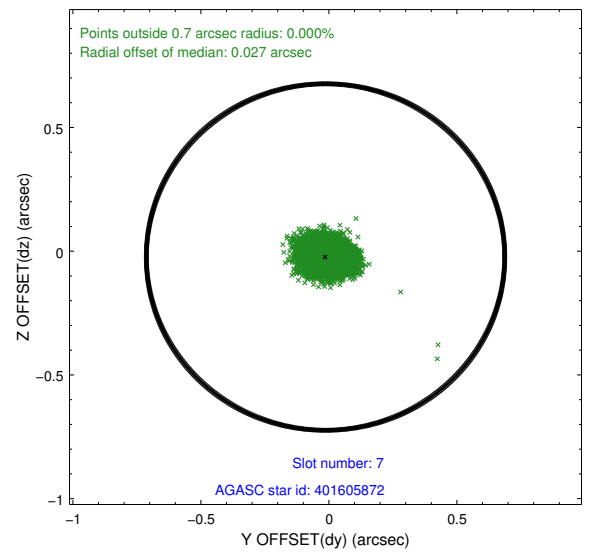
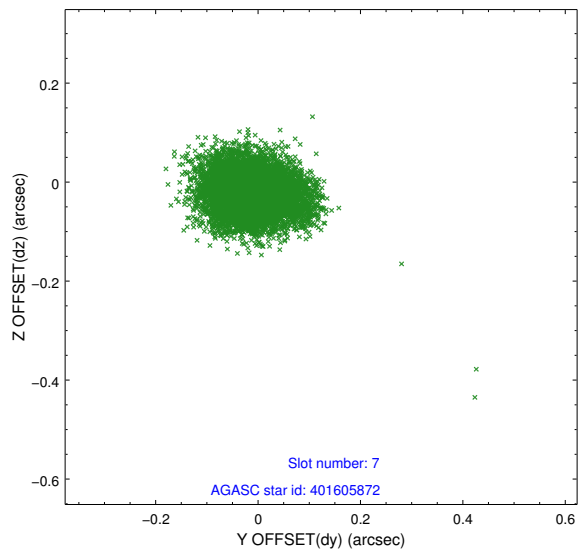
### 2.4.3 Slot 5



## 2.4.4 Slot 6

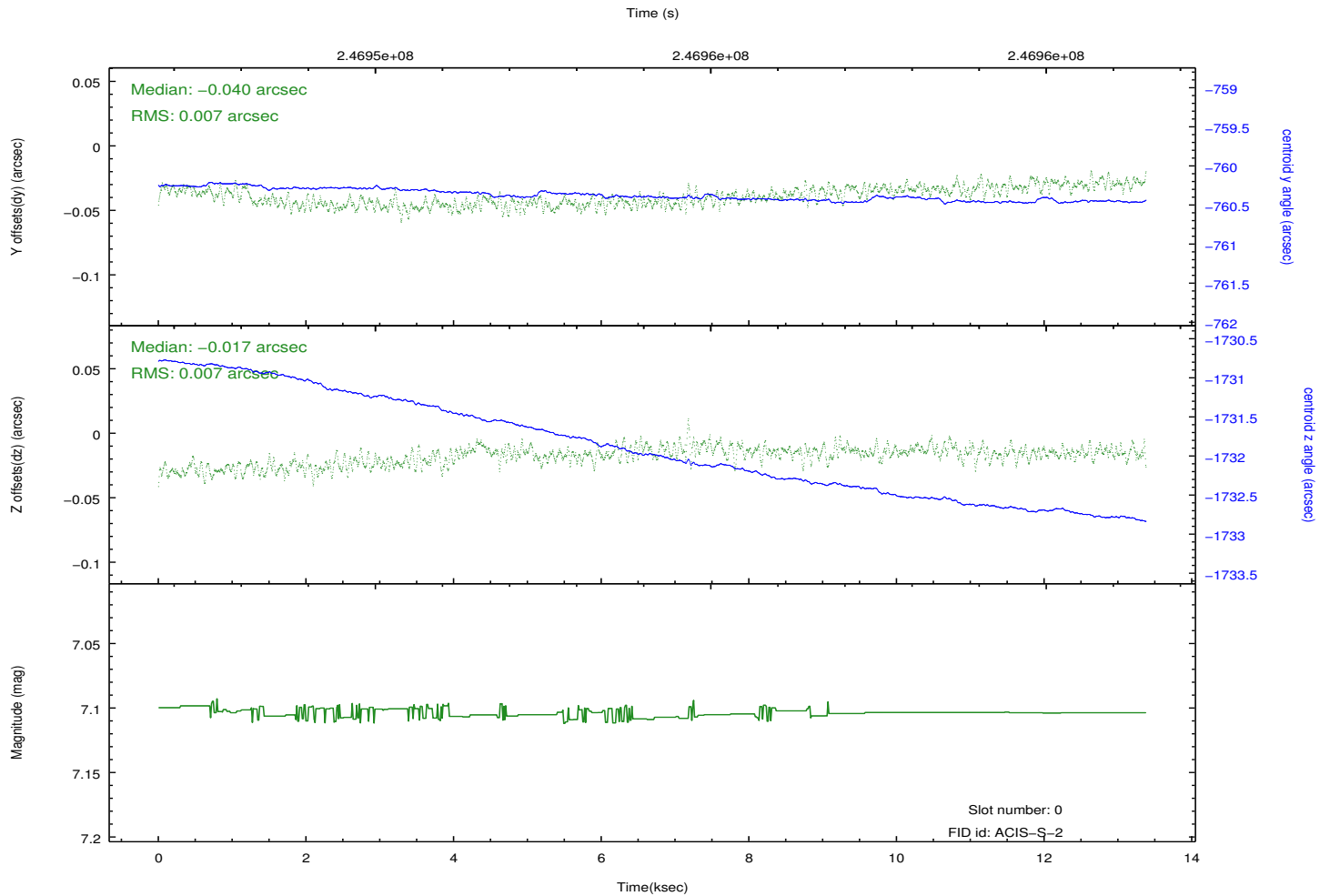
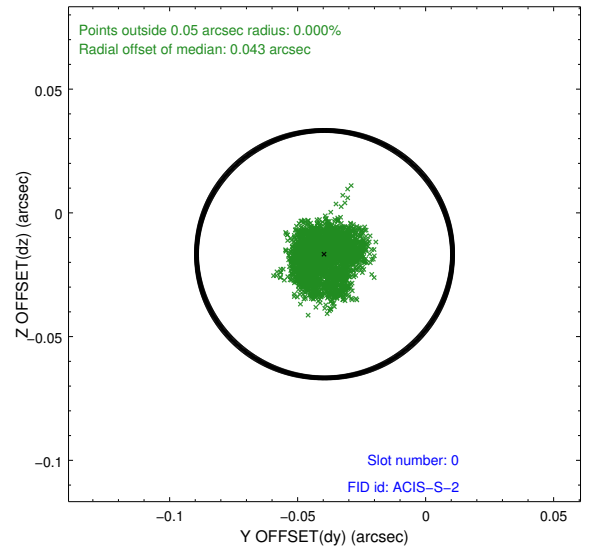
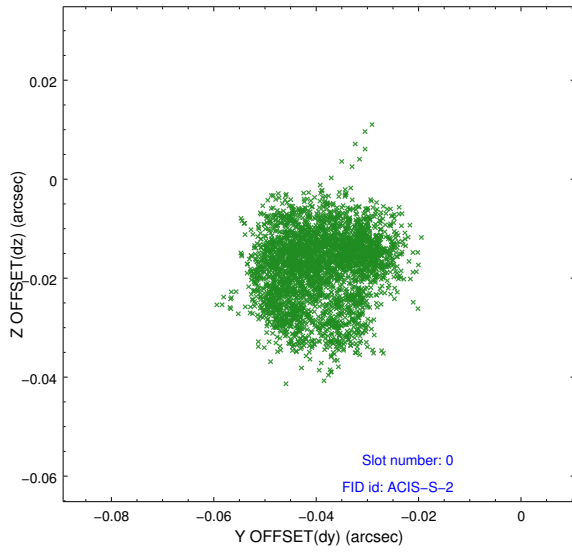


## 2.4.5 Slot 7

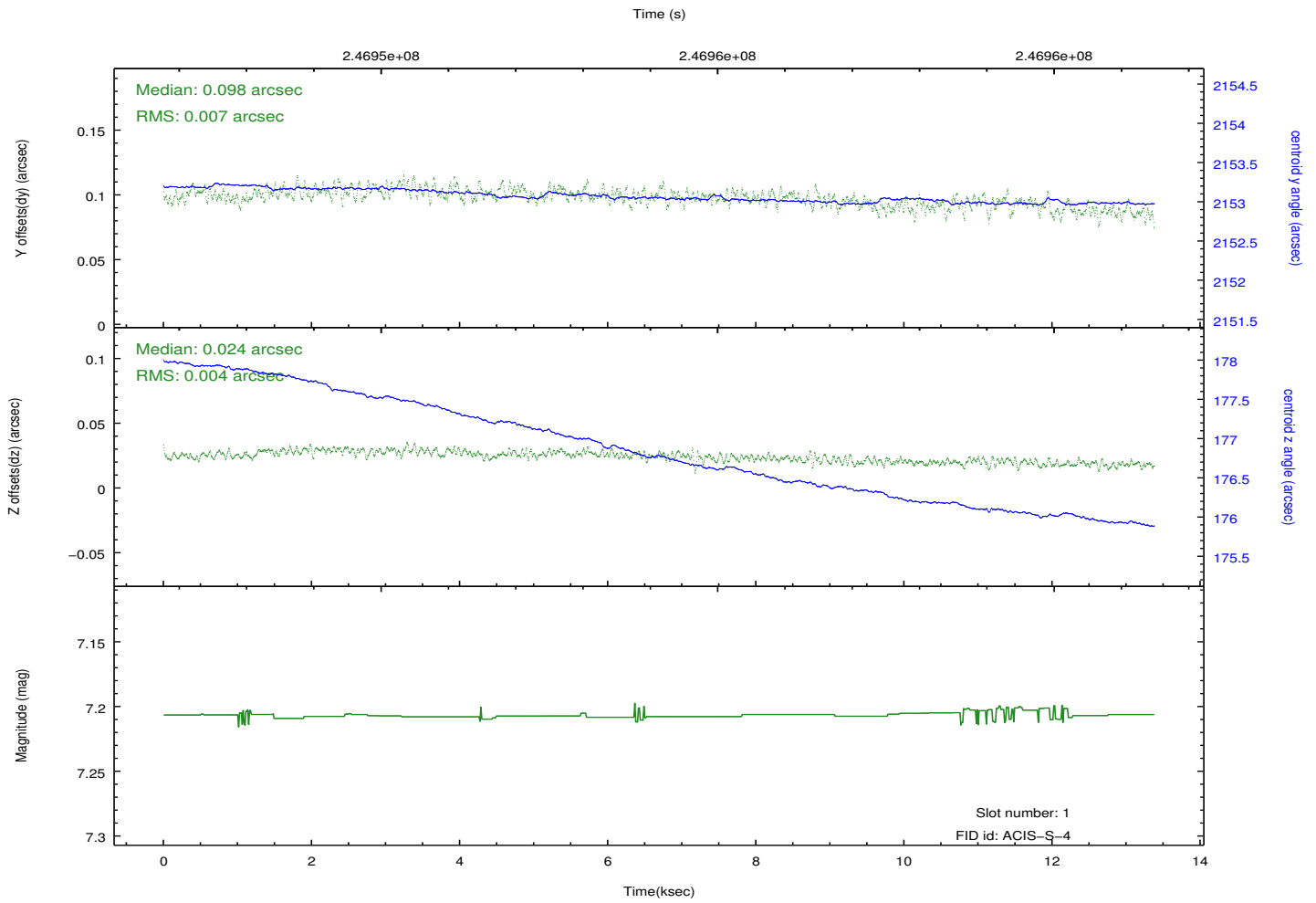
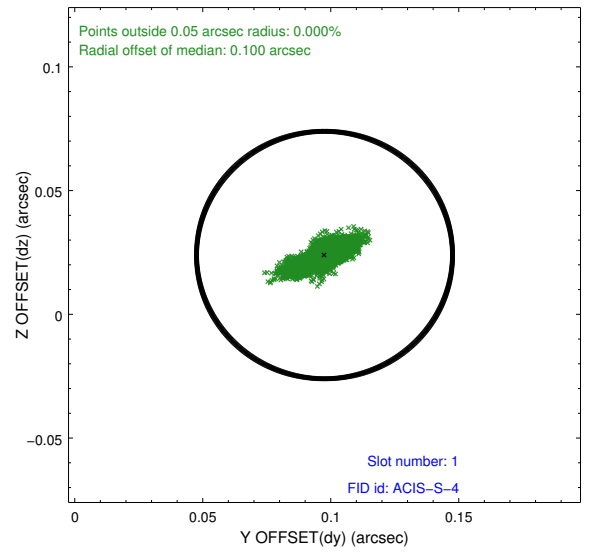
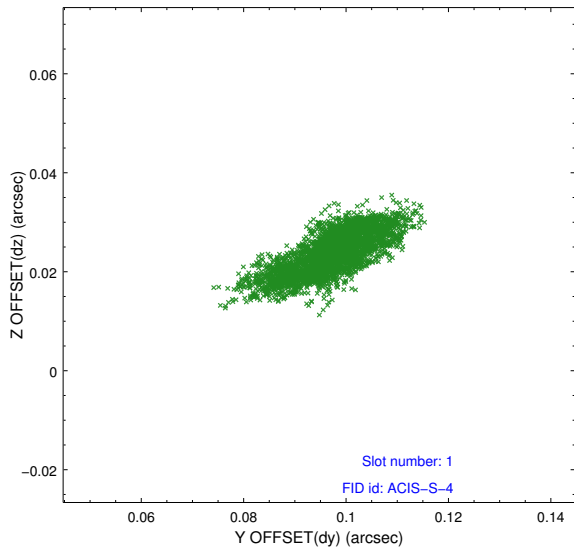


## 2.5 FID Slots

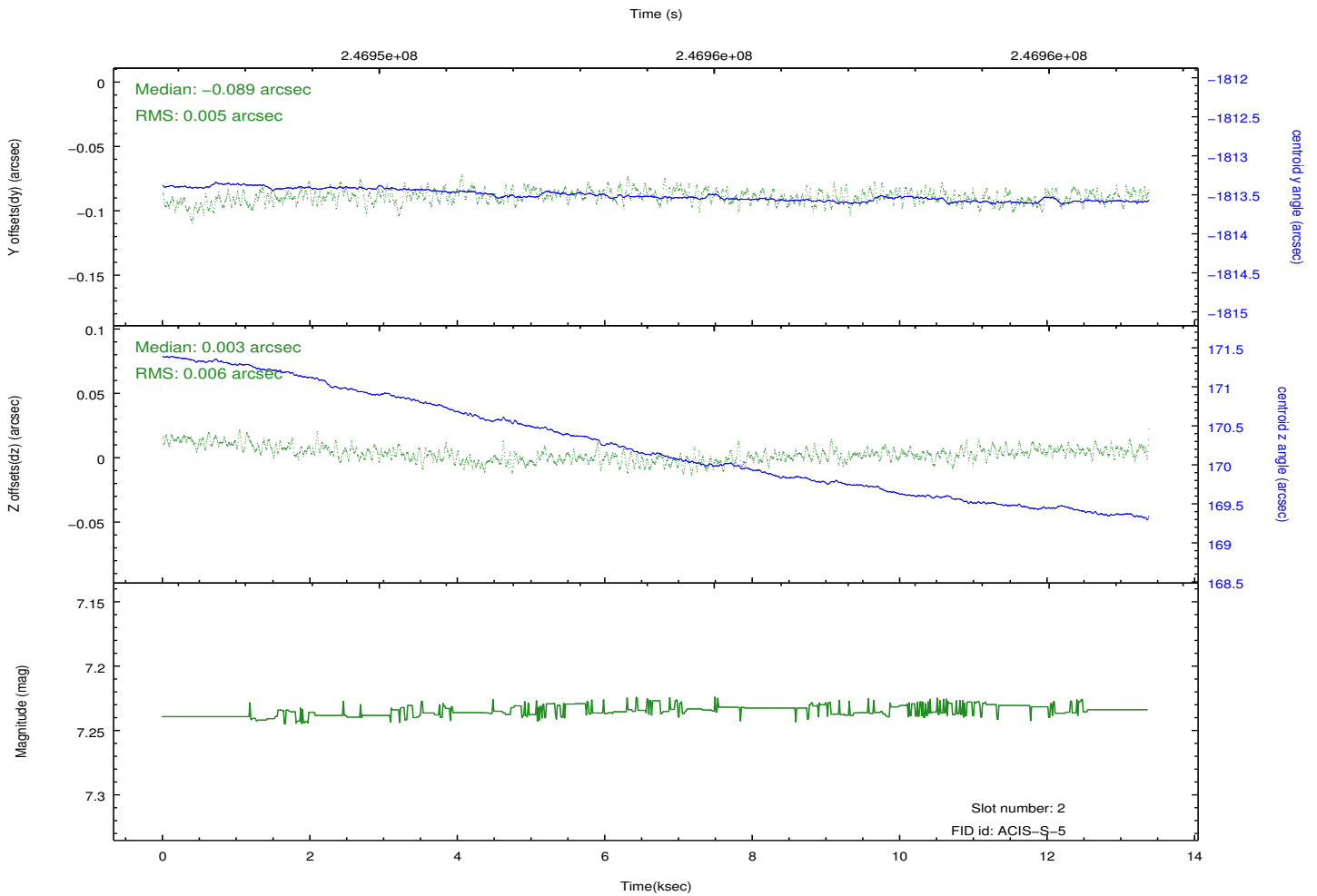
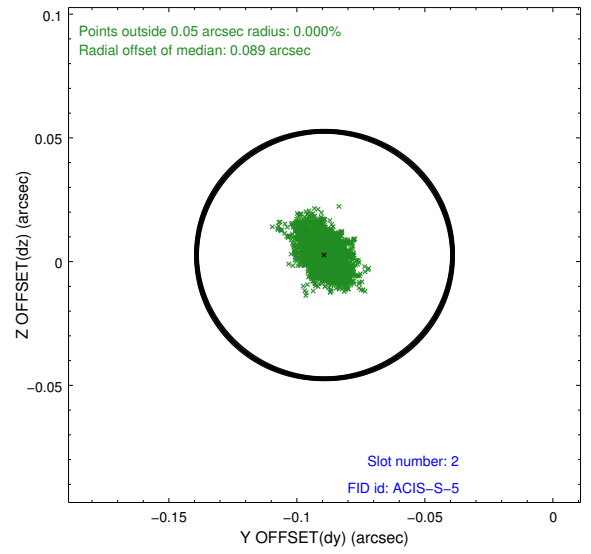
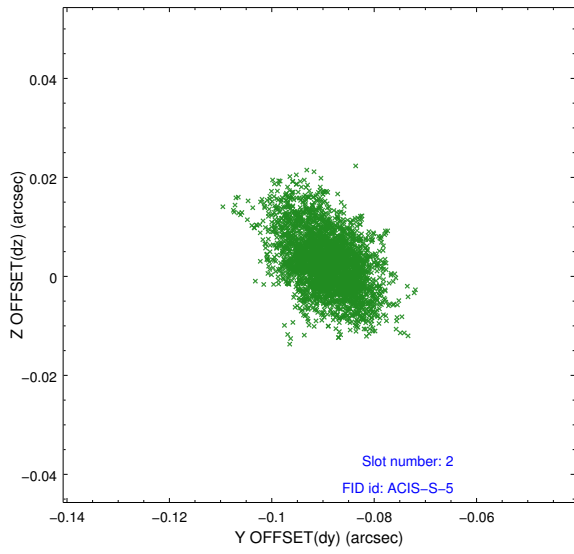
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.01.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.36959

## A.2 Comments